Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Air Force

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

Date: February 2016

3600: Research, Development, Test & Evaluation, Air Force I BA 7:

PE 0207247F *I AF TENCAP*

Operational Systems Development

| COST (\$ in Millions) | Prior Years | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Cost To Complete | Total Cost |
|----------------------------|----------------|---------|---------|-----------------|----------------|------------------|---------|---------|---------|---------|---------------------|---------------|
| Total Program Element | - | 6.974 | 31.428 | 28.413 | 0.000 | 28.413 | 22.821 | 21.178 | 21.516 | 21.844 | Continuing | Continuing |
| 670001: Air Force TENCAP | - | 6.974 | 31.428 | 28.413 | 0.000 | 28.413 | 22.821 | 21.178 | 21.516 | 21.844 | Continuing | Continuing |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

Note

In FY16, Project 670001, Air Force Tactical Exploitation of National Capabilities (TENCAP), Talon HATE effort will be completed.

A. Mission Description and Budget Item Justification

Air Force TENCAP increases warfighter effectiveness through the exploitation of national capabilities and promotes cross-domain integration of these capabilities into military operations/training, intelligence, surveillance and reconnaissance (ISR) activities.

AF TENCAP exploits existing air, space, cyber, national and global ISR, and Non-Traditional ISR (NTISR) for operational and tactical applications by rapidly prototyping and providing capability demonstrations. Projects are designed to transition to warfighters and/or national intelligence agencies for operational use, sustainment and appropriate acquisition Programs of Record for further development. AF TENCAP projects can influence the design and operation of current and future air, space, cyber, national and global ISR and NTISR while providing situational awareness to warfighters, national intelligence agency organizations and units.

Program consists of multiple small projects supporting one of the Air Force Core Function Mission Areas (CFMAs). Projects are executed to provide continued support to the National Warfighter, operational and Tactical Warfighter, and to Special Operations Forces.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Air Force

Date: February 2016

Appropriation/Budget Activity

R-1 Program Element (Number/Name)
PE 0207247F / AF TENCAP

3600: Research, Development, Test & Evaluation, Air Force I BA 7:

Operational Systems Development

| B. Program Change Summary (\$ in Millions) | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total |
|-------------------------------------------------------|---------|---------|---------------------|-------------|---------------|
| Previous President's Budget | 5.812 | 31.428 | 24.197 | 0.000 | 24.197 |
| Current President's Budget | 6.974 | 31.428 | 28.413 | 0.000 | 28.413 |
| Total Adjustments | 1.162 | 0.000 | 4.216 | 0.000 | 4.216 |
| Congressional General Reductions | 0.000 | 0.000 | | | |
| Congressional Directed Reductions | 0.000 | 0.000 | | | |
| Congressional Rescissions | 0.000 | 0.000 | | | |
| Congressional Adds | 0.000 | 0.000 | | | |
| Congressional Directed Transfers | 0.000 | 0.000 | | | |
| Reprogrammings | 1.162 | 0.000 | | | |
| SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| Other Adjustments | 0.000 | 0.000 | 4.216 | 0.000 | 4.216 |

Change Summary Explanation

- FY15: \$1.162 reprogrammed into AF TENCAP PE to cover Talon HATE cost increases
- FY17: \$4.5M add for "Classified Effort" and will be executed in "Exploitation Applications".
- FY17: \$284K "Inflation rate reduction for Non-pay/non-fuel".

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2015 | FY 2016 | FY 2017 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|
| Title: Exploitation Applications | 3.602 | 21.428 | 28.413 |
| Description: Exploiting existing air, space, cyber, national and global ISR, and Non-Traditional ISR (NTISR) for operational and tactical applications by rapidly prototyping, demonstrating capability, and influencing the design and operation of future space, cyber, national and global ISR, and NTISR systems for tactical users. | | | |
| FY 2015 Accomplishments: - Continued rapid prototype development of the AF TENCAP Portfolio comprised of 30+ efforts (Talons) across the Air Force's twelve core function mission areas | | | |
| FY 2016 Plans: - Continuing to rapidly prototype projects and focus warfighter support and resource allocation based on AF TENCAP mission/investment areas as a reflection of Air Force Core Function Mission Areas (CFMAs) | | | |
| | | | |

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Air Force Date: February 2016 R-1 Program Element (Number/Name) Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: PE 0207247F I AF TENCAP Operational Systems Development C. Accomplishments/Planned Programs (\$ in Millions) FY 2015 FY 2016 FY 2017 - Continuing to execute projects which provide continued support to the National Warfighter, Operational and Tactical Warfighter, and Special Operations Forces FY 2017 Plans: - Will continue to rapidly prototype projects and focus warfighter support and resource allocation based on AF TENCAP mission/ investment areas as a reflection of Air Force Core Function Mission Areas (CFMAs) - Will continue to execute projects which provide continued support to the National Warfighter, Operational and Tactical Warfighter, and Special Operations Forces Will initiate "Classified Effort" Title: Talon HATE 3.372 10.000 0.000 Description: Talon HATE is a technology prototype to evaluate the military utility of a next-generation capability for the F-15C providing multi-domain information to tactical users. Talon HATE will provide a multi-domain environment for enhanced capability to the warfighter. FY 2015 Accomplishments: Continued development and testing of four multi-domain fused information pods on F-15s FY 2016 Plans: - Completing development, testing, and fielding of four multi-domain fused information pods on F-15s FY 2017 Plans: N/A **Accomplishments/Planned Programs Subtotals** 6.974 31.428 28.413 D. Other Program Funding Summary (\$ in Millions) FY 2017 FY 2017 FY 2017 Cost To Line Item FY 2015 FY 2016 Base OCO Total FY 2018 FY 2019 FY 2020 FY 2021 Complete Total Cost N/A: N/A 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 Remarks

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Air Force | | Date: February 2016 |
|-----------------------------------------------------------------|-----------------------------------------------------------|---------------------|
| | R-1 Program Element (Number/Name) PE 0207247F / AF TENCAP | |

E. Acquisition Strategy

Projects are selected based upon needs identified by the program's customers - DOD Departments, Combatant Commands, Components, MAJCOMs, and/or National Intelligence Agencies. Many projects are executed via existing contracts maintained by other agencies; others are executed via Air Force TENCAP contracts established with vendors responding to annual Broad Agency Announcements. The U.S. government organization sponsoring a project is responsible for assuming acquisition, deployment, logistics, sustainment and budgetary responsibilities for the developed capability after it has been successfully demonstrated by Air Force TENCAP.

AF TENCAP projects typically use an incremental acquisition strategy. AF TENCAP utilizes a disciplined systems engineering approach that allows program team to solve problems through a series of segments. Each increment has to be successful to pursue the following segment which mitigates cost and schedule risk.

Contracts funded in this program element will be awarded using competitive procedures to the maximum extent possible.

F. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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| Appropriation/Budge 3600 / 7 | et Activity | / | | | | | ogram Ele 7247F / A | | | ame) | | (Number | , | \P | |
|---------------------------------|------------------------------|------------------------------------------------------|----------------|-------|---------------|-------------------------|------------------------|------------|---------------|-------|---------------|------------------|---------------------|---------------|--------------------------------|
| Product Developme | nt (\$ in M | illions) | | FY 2 | 2015 | FY 2017 FY 2016 Base | | | | | 2017 CO | FY 2017 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Exploitation Applications | Various | Various : Various | - | 3.252 | Dec 2014 | 20.178 | Dec 2015 | 26.963 | Dec 2016 | 0.000 | | 26.963 | Continuing | Continuing | TBD |
| Talon HATE | C/CPFF | Boeing/Various : Huntington Beach/ Various, CA | - | 3.372 | Mar 2015 | 9.500 | Jan 2016 | 0.000 | Feb 2016 | 0.000 | | 0.000 | Continuing | Continuing | - |
| | | Subtotal | - | 6.624 | | 29.678 | | 26.963 | | 0.000 | | 26.963 | - | - | - |
| Support (\$ in Million | s) | | | FY 2 | 2015 | FY 2 | 2016 | FY 2 | 2017 se | FY 2 | 2017 CO | FY 2017 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| | | Subtotal | - | - | | - | | - | | - | | - | - | - | - |
| Test and Evaluation | (\$ in Milli | ions) | | FY 2 | 2015 | FY 2 | 2016 | FY 2 Ba | - | FY 2 | 2017 CO | FY 2017 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To | Total Cost | Target Value of Contract |
| | | Subtotal | - | - | | - | | - | | - | | - | - | - | - |
| Management Service | es (\$ in M | lillions) | | FY 2 | 2015 | FY 2 | 2016 | FY 2 Ba | 2017 se | FY 2 | 2017 CO | FY 2017 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Program Oversight (PMA) | Various | Various : Various | - | 0.350 | Dec 2014 | 1.250 | Dec 2015 | 1.450 | Dec 2016 | 0.000 | | 1.450 | Continuing | Continuing | TBD |
| Program Support - Talon Hate | Various | Various : Various | - | 0.000 | | 0.500 | Jan 2016 | 0.000 | | 0.000 | | 0.000 | Continuing | Continuing | - |
| | | Subtotal | - | 0.350 | | 1.750 | | 1.450 | | 0.000 | | 1.450 | - | - | - |
| | | | Prior | | | | | FY 2 | 2017 | | 2017 | FY 2017 | Cost To | Total | Target Value of |
| | | | Years | FY 2 | 2015 | FY 2 | 2016 | Ва | se | 00 | CO | Total | Complete | Cost | Contract |

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| Exhibit R-3, RDT&E Project Cost Ana | alysis: PB 2017 Air Fo | orce | | | | Date | : February | 2016 | | | | |
|------------------------------------------|-------------------------------|---------|---------------------------------------|-------------------------------|----------------|----------------------------------------------------|---------------------|---------------|------------------------------|--|--|--|
| Appropriation/Budget Activity 600 / 7 | | | R-1 Program E PE 0207247F / | lement (Number/N AF TENCAP | ame) Proj | Project (Number/Name) 670001 / Air Force TENCAP | | | | | | |
| | Prior Years | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | Cost To Complete | Total Cost | Target Value o Contrac | | | |
| <u>Remarks</u> | | | | | 1 | ' | | | | | | |
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| chibit R-4, RDT&E Schedule Profile: PB 2017 Appropriation/Budget Activity | | | | | | | | | | | | | | nber | /Nai | ne) | | | | | ımb | | | | , | | | |
|---------------------------------------------------------------------------|-------------------------------------|----|-----|---|---|----|-----------------------------|---|---|---|---|---|---------------------------|------|------|-----|---|-----------------------------|---|---|-----|---|---|---|---|---|---|---|
| 0077 | PE 0207247F <i>I AF TENCAP</i> 6700 | | | | | | | | | | | | 670001 I Air Force TENCAP | | | | | | | | | | | | | | | |
| | | FY | 201 | 5 | | FY | 7 2016 FY 2017 FY 2018 FY 2 | | | | | | | Y 2 | 2019 | | | FY 2020 FY 202 ² | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| FY 2015 Exploitation Applications Developed | | | | | | | | | | | | | | | | | | | | | , | | | | | | | |
| FY 2015 Exploitation Applications Tested, Evaluated, and Released | | | | | | | | I | | | | | | | | | | | | | | | | | | | | |
| FY 2016 Exploitation Applications Developed | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FY 2016 Exploitation Applications Tested, Evaluated, and Released | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FY 2017 Exploitation Applications Developed | | | | | | | | | | | | | | | | | | | | | | | | | | | | - |
| FY 2017 Exploitation Applications Tested, Evaluated, and Released | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FY 2018 Exploitation Applications Developed | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FY 2018 Exploitation Applications Tested, Evaluated, and Released | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FY 2019 Exploitation Applications Developed | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FY 2019 Exploitation Applications Tested, Evaluated, and Released | | | | | | | | | | | | | | | | | | | | | | | | I | | | | |
| FY 2020 Exploitation Applications Developed | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FY 2020 Exploitation Applications Tested, Evaluated, and Released | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FY 2021 Exploitation Applications Developed | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Talon HATE Developed | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Talon HATE Integrated/Tested | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2017 Air Force | | | Date: February 2016 |
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| 11 | | - 3 (| umber/Name) |
| 3600 / 7 | PE 0207247F <i>I AF TENCAP</i> | 670001 <i>I A</i> | Air Force TENCAP |

Schedule Details

| | St | art | End | | | |
|-------------------------------------------------------------------|---------|------|---------|------|--|--|
| Events | Quarter | Year | Quarter | Year | | |
| FY 2015 Exploitation Applications Developed | 1 | 2015 | 2 | 2016 | | |
| FY 2015 Exploitation Applications Tested, Evaluated, and Released | 2 | 2016 | 3 | 2016 | | |
| FY 2016 Exploitation Applications Developed | 1 | 2016 | 2 | 2017 | | |
| FY 2016 Exploitation Applications Tested, Evaluated, and Released | 2 | 2017 | 3 | 2017 | | |
| FY 2017 Exploitation Applications Developed | 1 | 2017 | 2 | 2018 | | |
| FY 2017 Exploitation Applications Tested, Evaluated, and Released | 2 | 2018 | 3 | 2018 | | |
| FY 2018 Exploitation Applications Developed | 1 | 2018 | 2 | 2019 | | |
| FY 2018 Exploitation Applications Tested, Evaluated, and Released | 2 | 2019 | 3 | 2019 | | |
| FY 2019 Exploitation Applications Developed | 1 | 2019 | 2 | 2020 | | |
| FY 2019 Exploitation Applications Tested, Evaluated, and Released | 2 | 2020 | 3 | 2020 | | |
| FY 2020 Exploitation Applications Developed | 1 | 2020 | 2 | 2021 | | |
| FY 2020 Exploitation Applications Tested, Evaluated, and Released | 2 | 2021 | 3 | 2021 | | |
| FY 2021 Exploitation Applications Developed | 1 | 2021 | 4 | 2021 | | |
| Talon HATE Developed | 1 | 2015 | 1 | 2016 | | |
| Talon HATE Integrated/Tested | 3 | 2015 | 4 | 2016 | | |

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